

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

Claim 1 (currently amended): A holder for use in semiconductor or liquid-crystal manufacturing devices, comprising:

a ceramic susceptor; and

a composite of a ceramic and a metal furnished atop said ceramic susceptor, the composite including a mixture of metallic and ceramic constituents, the mixture including metallic microconstituents distributed in a ceramic matrix, the ceramic metal composite further including a retaining face configured to hold either a semiconductor wafer or LCD glass as a processed object; and

an electrically resistive heating circuit provided either in the ceramic susceptor, or on a face of the ceramic susceptor opposite the ceramic-metal composite.

Claim 2 (original): A holder as set forth in claim 1, wherein the Young's modulus of the ceramic-and-metal composite is 300 GPa or less.

Claim 3 (original): A holder as set forth in claim 1, wherein the thermal conductivity of the ceramic-and-metal composite is 100 W/mK or more.

Claim 4 (original): A holder as set forth in claim 1, wherein the thermal expansion coefficient of the ceramic-and-metal composite is Claim 2.5×10^{-6} to Claim $8.0 \times 10^{-6}/^{\circ}\text{C}$.

Claim 5 (original): A holder as set forth in claim 1, further comprising a

support part supporting the ceramic-and-metal composite.

Claim 6 (original): A holder as set forth in claim 1, further comprising a support part supporting the ceramic susceptor.

Claim 7 (original): A holder as set forth in claim 1, further comprising a support part supporting both the ceramic-and-metal composite and the ceramic susceptor.

Claim 8 (original): A holder as set forth in claim 1, wherein a coating is formed on at least a processed-object-retaining side of the holder.

Claim 9 (original): A holder as set forth in claim 1, wherein the ceramic-and-metal composite functions as an electrode.

Claim 10 (original): A semiconductor or liquid-crystal manufacturing device in which the holder of claim 1 is installed.

Claims 11-15 (canceled)

Claim 16 (currently amended): A holder as set forth in claim 1, wherein:

the metal comprises at least one member of the group consisting of Al, Si, and Cu; and

the ceramic comprises at least one member of the group consisting of SiC, Al₂O₃, AlN, WC, and BN.

Claim 17 (currently amended): A holder as set forth in claim 1, wherein the ceramic-metal composite comprises at least one compound selected from the group consisting of Al-SiC, Al-Al₂O₃, Al-AlN, Si-SiC, Si-Al₂O₃, and Si-AlN.

Claim 18 (previously presented): A holder as set forth in claim 1, wherein the composite comprises a sintered mixture of metal and ceramic powders.

Claim 19 (previously presented): A holder as set forth in claim 1, wherein the composite comprises metal infiltrated into a porous ceramic substrate.

Claim 20 (new): A holder for use in semiconductor or liquid crystal manufacturing devices, the holder comprising:

a support structure disposed in a processing chamber, the support structure anchored to a floor of the processing chamber;

a ceramic-metal composite provided atop the support structure, the ceramic-metal composite including a substantially uniform mixture of ceramic and metal microconstituents, the ceramic-metal composite further including a retaining face configured to hold either a semiconductor wafer or LCD glass as a processed object, the support structure thermally isolating the ceramic-metal composite from the processing chamber;

a ceramic susceptor disposed on an underside of the ceramic-metal composite such that the ceramic susceptor does not contact either the support structure or the processing chamber.

Claim 21 (new): A holder as set forth in claim 20, further comprising an electrically resistive heating circuit provided either in the ceramic susceptor, or on a face of the ceramic susceptor opposite from the ceramic-metal composite.